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(56) Documents Cited

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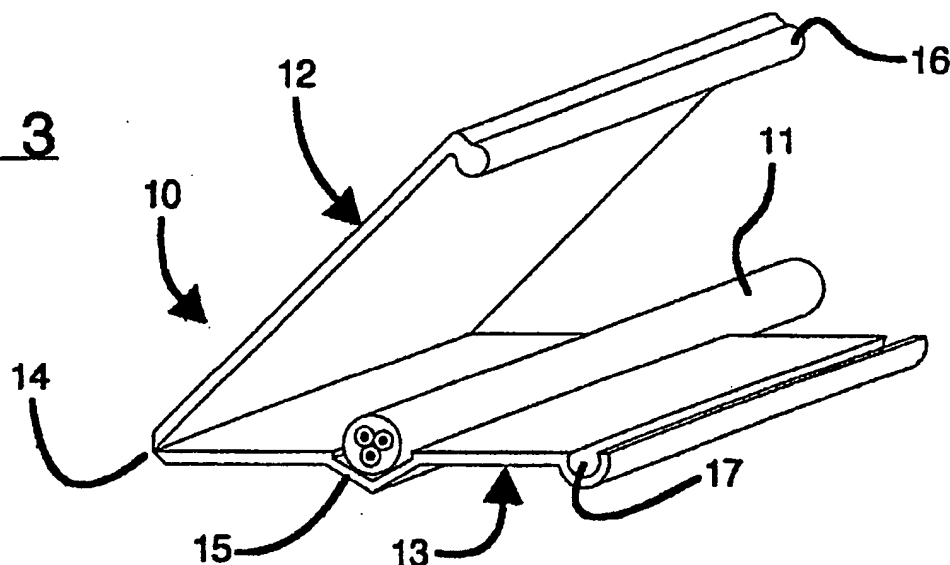
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## (54) Cable markers

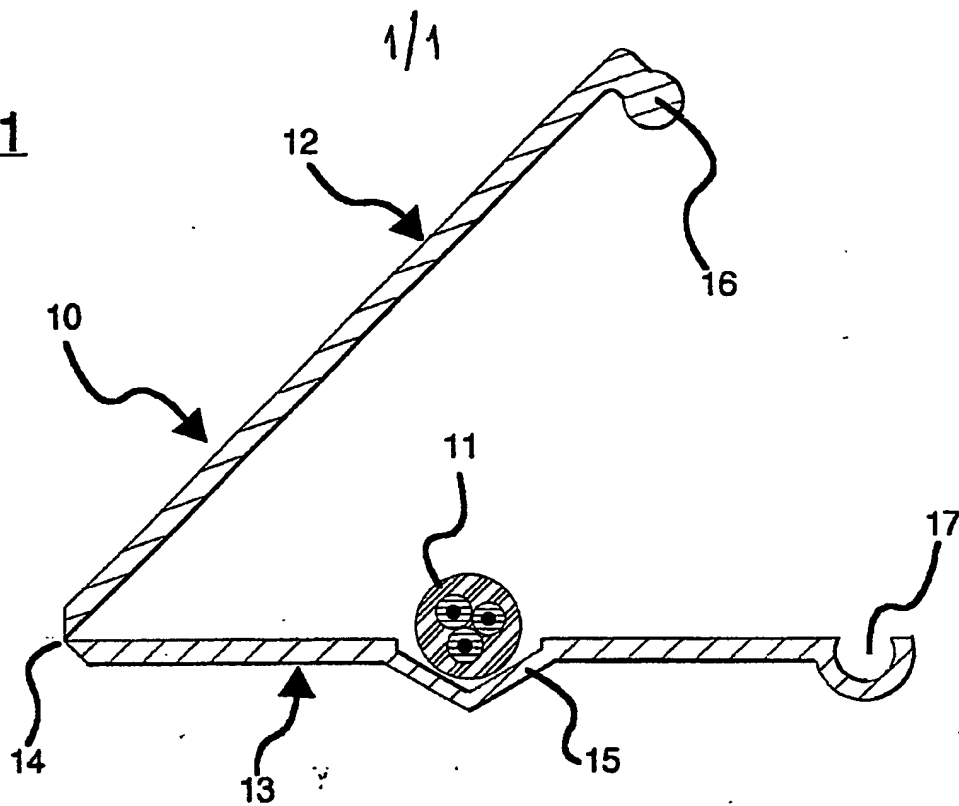
(57) A cable tag 10 for clipping onto a cable 11 comprises a pair of generally planar members 12, 13 hinged together along one common edge 14 and having engagement means 16, 17 along the opposite pair of edges. Member 13 is formed with a generally central groove 15 for receiving the cable, facing the other member and parallel to the hinge. The outer surface of the other member 12 is intended to carry identifying information, and its surface is formed or treated to be readily writable on (eg by having a self-adhesive label attached thereto during manufacture). The engagement means may comprise a press-in rod and cup 17. The tag may be formed of resilient and deformable plastics material by extrusion as a single strip which is then cut into separate tags. This allows the tag size to be adjusted, and minimizes the manufacturing cost. The tag may also be applied to a pipe or conduit.

**FIG. 3**

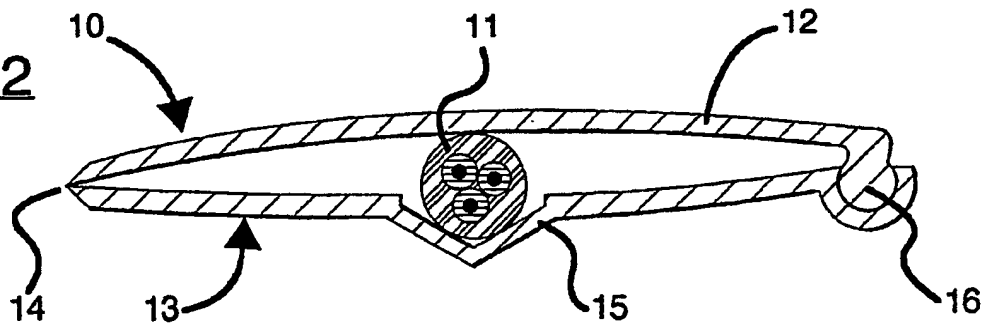


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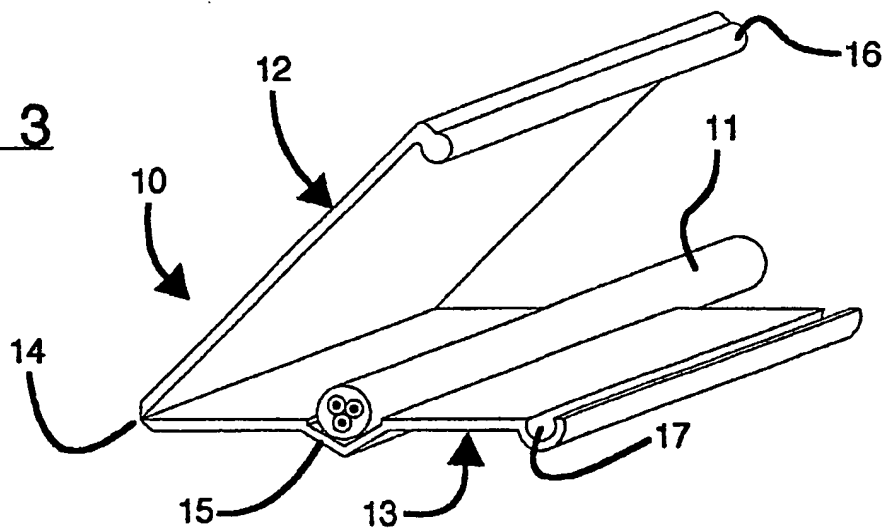
**FIG. 1**



**FIG. 2**



**FIG. 3**



## Cable Markers

The present invention relates to cable markers; that is, to devices for attachment to cables and the like to identify the cables.

There are many situations where it is desirable, or even necessary, to provide cables with some form of identification, in the form of graphic and/or textual information. In some situations, the cables may be made with some kind of intrinsic identification, such as differently coloured coatings. Often, however, the cables are inherently identical, and have to have their identifications added later.

One known form of identification is heat shrink sleeving, but this obviously has very limited application. The end of the cable has to be free for the sleeving to be passed over it, the information is predetermined and its amount is extremely limited, and a heat-shrinking device has to be used.

Another known form is cable ties and tags. These allow a substantial amount of information to be freely written on them. However, they are awkward and time-consuming to fit, and consist of 2 or 3 components and are therefore fairly costly and require assembling. They are also liable to become entangled with each other or with adjacent fittings, and so can become detached or make it difficult to match the tags with the cables.

Plastic clips have also been proposed as cable markers. One such clip consists of a pair of semi-cylindrical half-shells, hinged together along one longitudinal common edge and having engagement means along the other meeting pair of edges so that it can be clipped round the cable. The clip is limited to a relatively narrow range of cable sizes, as it will not fit round too large a cable and will slide on too small a one; its range of cable sizes can be increased by providing deformable internal pins or ribs, but these increase the clip's complexity and are liable to damage the cable. Also, the amount of information which can be carried on this clip is minimal.

The general object of the present invention is to provide an improved form of cable identification.

Accordingly the present invention provides a cable tag comprising a pair of generally planar members hinged together and each having engagement means located generally opposite the hinge edge, one of the members being formed with a generally central groove, for receiving a cable, facing the other member and passing transversely between the hinge and the engagement means.

The two members can conveniently be generally rectangular, hinged together along one common edge and having the engagement means along the opposite pair of edges.

The outer surface of the non-grooved member is intended to carry identifying information, and its surface is preferably formed or treated to be readily writable on (eg by having a self-adhesive label attached thereto during manufacture).

The tag is preferably formed by extrusion as a single strip which is then cut into separate tags. This allows the tag size to be adjusted, and minimizes the manufacturing cost.

The tag is preferably also formed of plastics material, which is sufficiently resilient and deformable for the engagement means to consist of a press-in rod and cup and to allow the members to deform to accommodate a range of cable sizes.

A cable tag embodying the invention will now be described, by way of example, with reference to the drawings, in which:

Fig. 1 is a section through the tag in the process of being clipped onto a cable;

Fig. 2 is a section through the tag when clipped onto a cable; and

Fig. 3 is a perspective view of the tag in the process of being clipped onto a cable.

Fig. 1 shows the tag 10 in the process of being clipped onto a cable 11. The tag consists of two major rectangular members 12 and 13, which are hinged together along a common edge at 14. Member 13 has a shallow groove 15, forming a cable guide, formed centrally along its length; the angle of this groove can

conveniently be some 120°. The edge of member 12 opposite the hinge 14 is formed as a rod 16 as shown, and the edge of member 13 opposite the hinge 14 is formed as a linear cup 17 as shown.

The tag 10 is attached to the cable 11 by being placed around the cable with the cable lying in the cable groove 15, as shown in Fig. 1, with the rod 16 and cup 17 then being pushed together. This results in the rod and cup, which form the engagement means, locking together as shown in Fig. 2 to retain the tag on the cable. The tag can be attached one-handed, using only modest force between finger and thumb.

Information can be written, either before or after the tag is attached to the cable, on the outer face of member 12, which is surfaced to take pencil and ink. If desired, the two parts of the outer face of member 13, one each side of the cable groove, can be similarly surfaced and used for recording additional information. The large size of these members relative to the cable diameter permits a substantial amount of information of relatively large size to be recorded. If desired, the information can be preprinted, eg by an ink jet printer.

The resilience of the tag allows the two members 12 and 13 to be hinged together by an integral hinge formed as a thinning of the material of the tag, and allows the rod 16 to be pushed into and retained by the cup 17. It also allows the tag to be used with a variety of cable sizes and shapes; the two members 12 and 13 take up a relatively small curvature which varies only slightly with differing cable sizes. For widely different cable sizes, the tags may of course be made in a range of sizes.

The tag grips the cable tightly enough to prevent slipping along the cable but loosely enough to avoid damage to the cable. The absence of any pins or ribs in the cable groove means that the outer surface of the cable will undergo virtually no deformation. If the tag is to be used with cables of non-circular section, the shape of the cable groove can be matched to the intended cable section if desired.

The tag can readily be removed from the cable if desired by forcing the two members 12 and 13 apart at the engagement, eg by inserting the blade of a screwdriver between the two members adjacent to the engagement and turning it.

If desired, however, the engagement means may be a non-return type which cannot be re-opened.

The tag can be made in any convenient colour; if desired, a range of tags can be made in different colours.

The tag is manufactured by extrusion of plastics material, which is insulating and has no inductive effect. This allows the cup 17 to be formed with the required slight convergence of its opening. It also allows the size, ie the length, of the tag to be readily adjusted, by cutting the extrusion into suitable lengths. Obviously the ends of the tag can be cut to shapes other than straight across if desired, though the two members should each retain the essential rectangularity of having a straight hinge edge and a straight engagement edge opposite and parallel to the hinge edge.

As an alternative, however, the tag could be made by other means, eg injection moulding, and other forms of engagement means could be used, eg a hook and eye type engagement.

The tag can be used for a variety of cables and the like, eg pipes and conduits. It can be used to identify cables in a wide variety of situations, eg house wiring circuits, cables between computer units, wires from multiple plug arrays, internal equipment wiring, automotive wiring looms, and video and audio system interconnections.

## Claims

1 A cable tag comprising a pair of generally planar members hinged together and each having engagement means located generally opposite the hinge edge, one of the members being formed with a generally central groove, for receiving a cable, facing the other member and passing transversely between the hinge and the engagement means.

2 A cable tag according to claim 1 wherein the two members are generally rectangular, hinged together along one common edge and with the engagement means along the opposite pair of edges.

3 A cable tag according to either previous claim wherein the outer surface of the non-grooved member is formed or treated to be readily writable on.

4 A cable tag according to claim 3 wherein the outer surface of the non-grooved member has a self-adhesive label attached thereto during manufacture.

5 A cable tag according to any previous claim formed of resilient and deformable plastics material.

6 A cable tag according to any previous claim wherein the engagement means consist of a press-in rod and cup.

7 A method of making cable tags according to any previous claim by extrusion as a single strip which is then cut into separate tags.

8 Any novel and inventive feature or combination of features specifically disclosed herein within the meaning of Article 4H of the International Convention (Paris Convention).

**Patents Act 1977**  
**Examiner's report to the Comptroller under Section 17**  
**(The Search report)**

Application number  
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**Relevant Technical Fields**

- (i) UK Cl (Ed.M)      B8F (FBE, FBG, FBX); H1A (AKJ)  
(ii) Int Cl (Ed.5)      G09F 3/02; H01B 7/36

Search Examiner  
S R SMITH

Date of completion of Search  
25 FEBRUARY 1994

**Databases (see below)**

- (i) UK Patent Office collections of GB, EP, WO and US patent specifications.

Documents considered relevant following a search in respect of Claims :-  
1 TO 7

- (ii) ONLINE DATABASES: EDOC, WP1

**Categories of documents**

- X: Document indicating lack of novelty or of inventive step.      P: Document published on or after the declared priority date but before the filing date of the present application.  
Y: Document indicating lack of inventive step if combined with one or more other documents of the same category.      E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.  
A: Document indicating technological background and/or state of the art.      &: Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages	Relevant to claim(s)
A	GB 2214892 A (DEVELOPMENT)	
A	GB 989878 (HELLERMANN)	
X,P,&	WO 93/04488 A1 (IDENTO) whole document relevant	1 to 3, 5
&	DE 9110191 U (IDENTO)	1 to 3, 5

Databases: The UK Patent Office database comprises classified collections of GB, EP, WO and US patent specifications as outlined periodically in the Official Journal (Patents). The on-line databases considered for search are also listed periodically in the Official Journal (Patents).